

## ABSTRACT OF THE DISCLOSURE

A sprocket has a base steel member including an outer toothed profile surface, at least a portion of the outer toothed profile surface having a wear and corrosion resistant coating disposed thereon; the coating comprising an alloy, the alloy comprising at least 60 weight % iron, cobalt, nickel, or alloys thereof. A method of producing a wear and corrosion resistant sprocket includes:

(i) machining a base steel member to form an outer toothed profile surface thereon; (ii) applying a coating to at least a portion of the surface; and (iii) fusing the coating to the base steel member.